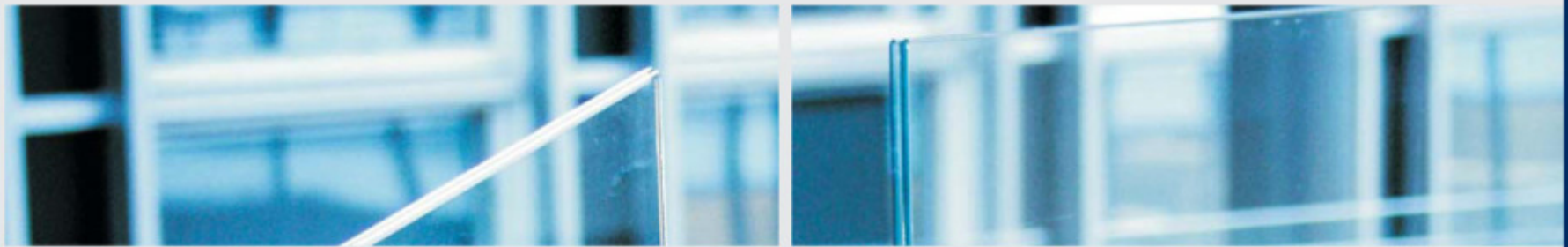


# MANAGING CREATIVE KNOWLEDGE CAPITAL

How to build companies competence through innovation capability and foresight (DYNY)

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Professor Markku Wilenius  
European Futurists Conference  
Lucerne, November 23-24, 2006

European  
Futurists  
Conference  
Lucerne

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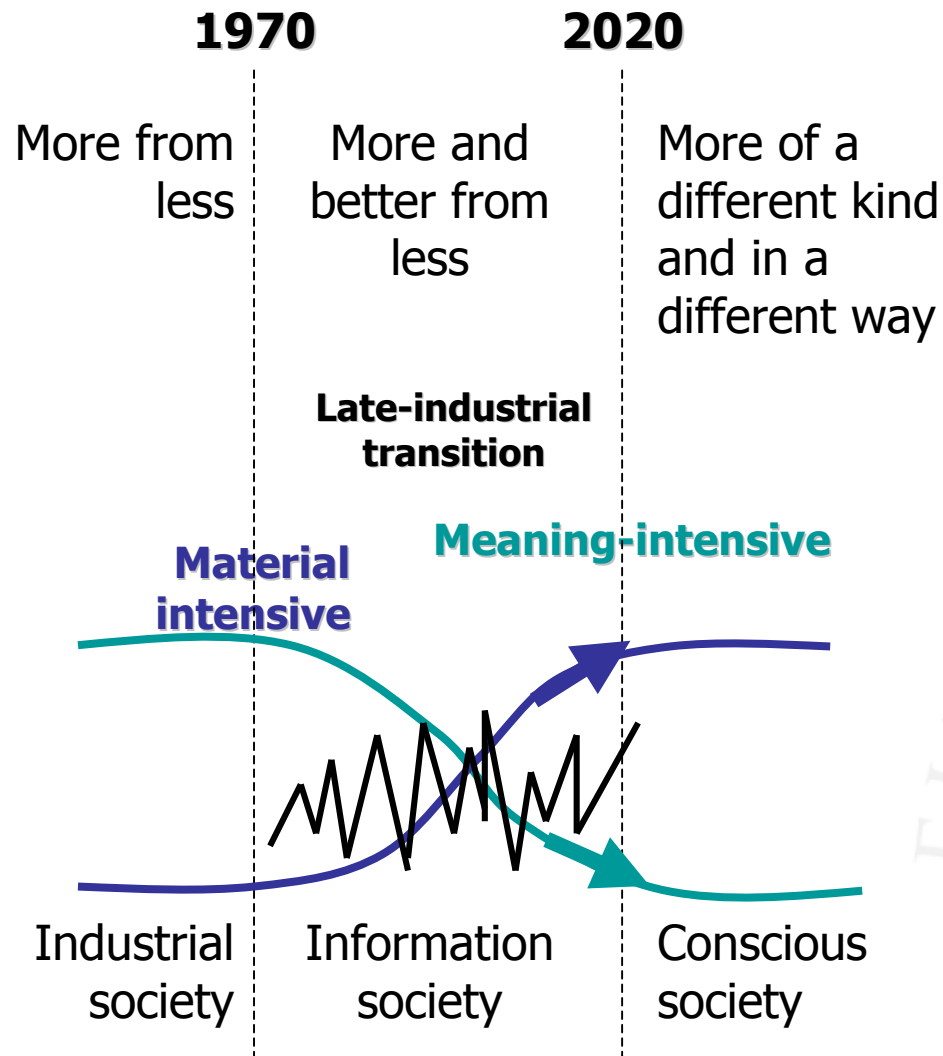


## Why creative knowledge capital?

30.11.2006



# Because of the change of the Era



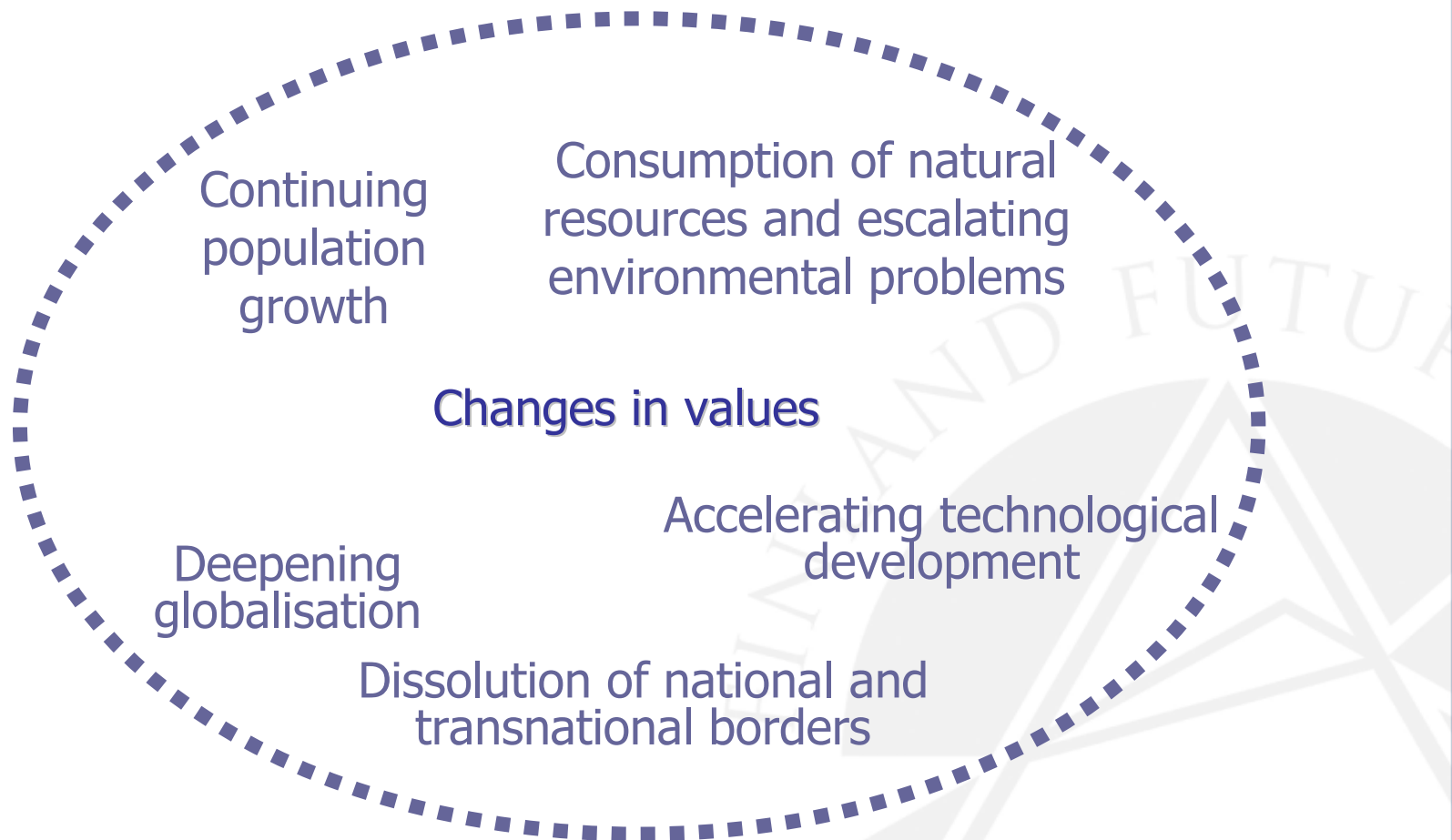
**Operating principle**

**Operating logic**

Current society is late-industrial transition between two epochs

**Type of society**

# Because of these six factors that will change the world within the next 20 years...



# Because of the change of paradigm...

## 1. Industrial revolution 1750-1880

- companies used knowledge to *produce tools and products*

## 2. Production revolution 1880-1945

- companies used knowledge to *improve labour processes*

## 3. Management revolution 1945 –

- companies use knowledge to *improve knowledge*

## 3. Consciousness revolution 2000 –

- companies use knowledge to *improve awareness*

Because the wealth creation is increasingly based on intangibles...

40% of the net profit of listed Finnish companies is based on knowledge driven earnings.

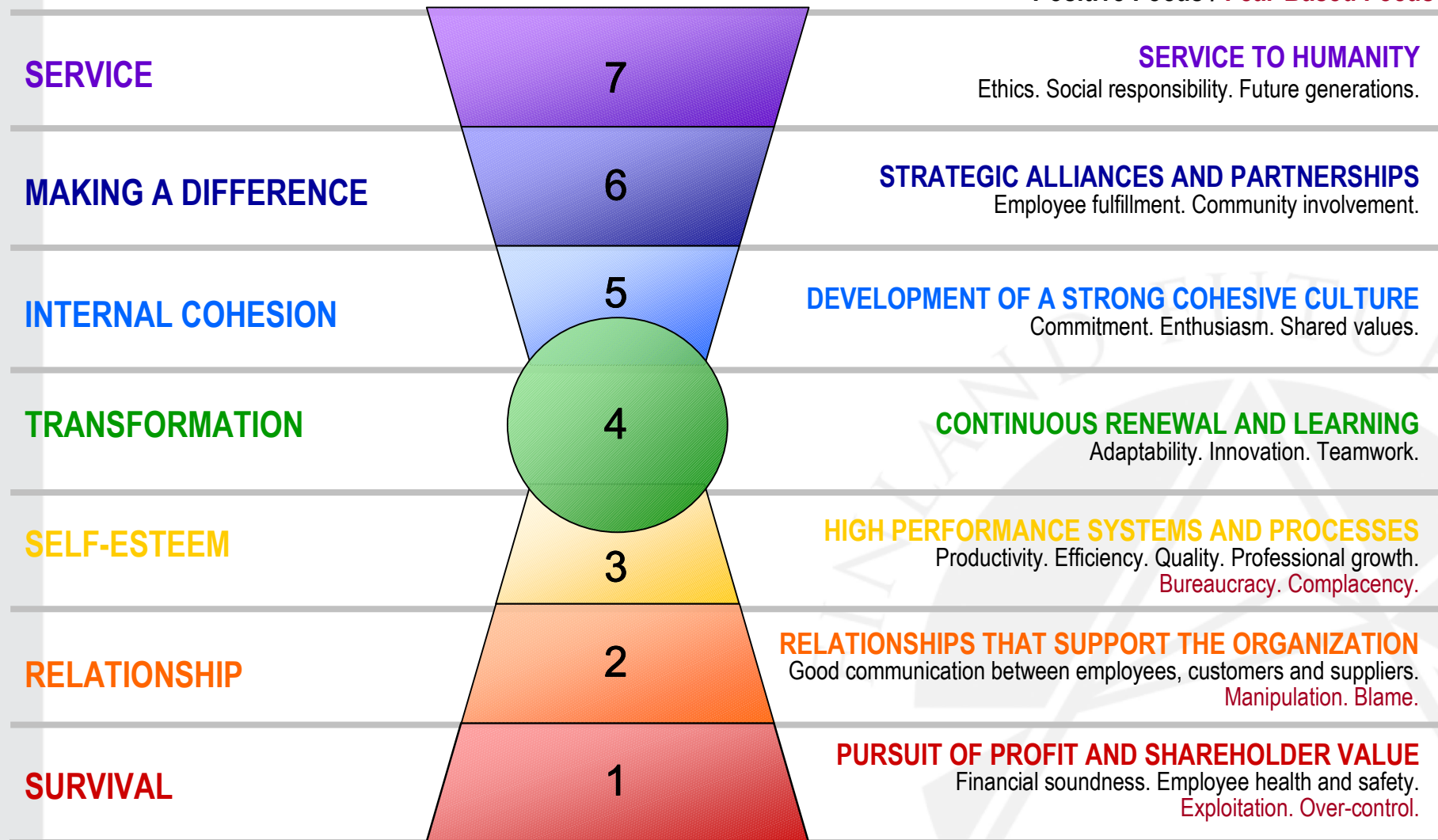




Because there are new demands of company performance...

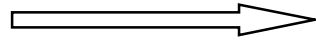
## Seven Levels of Organizational Consciousness

Positive Focus / Fear-Based Focus

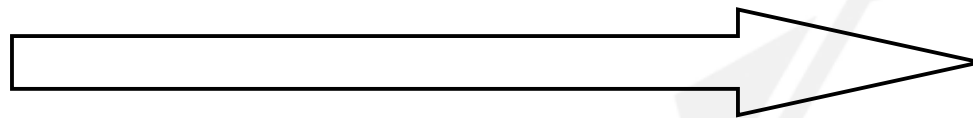
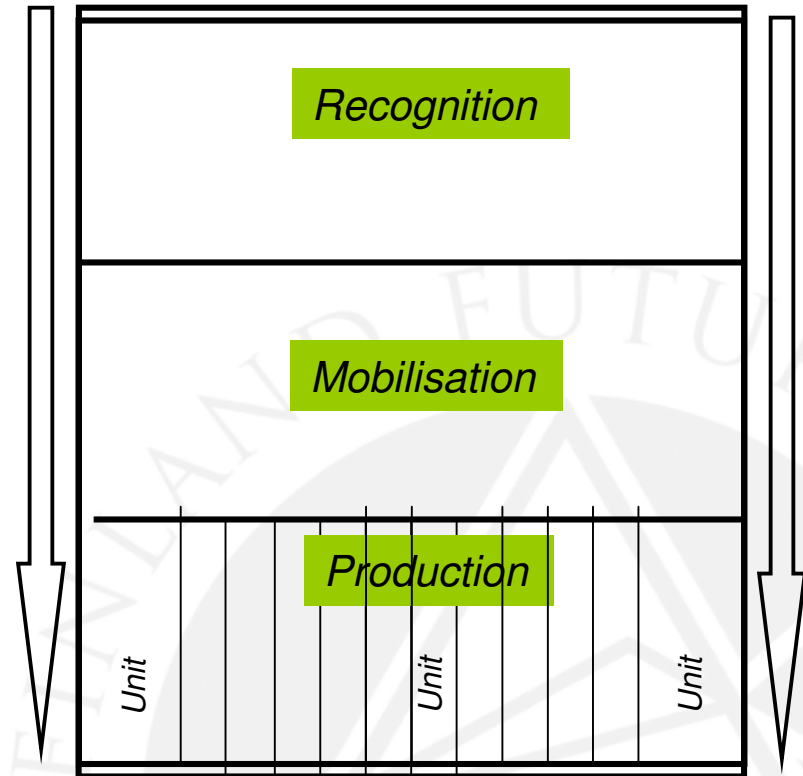
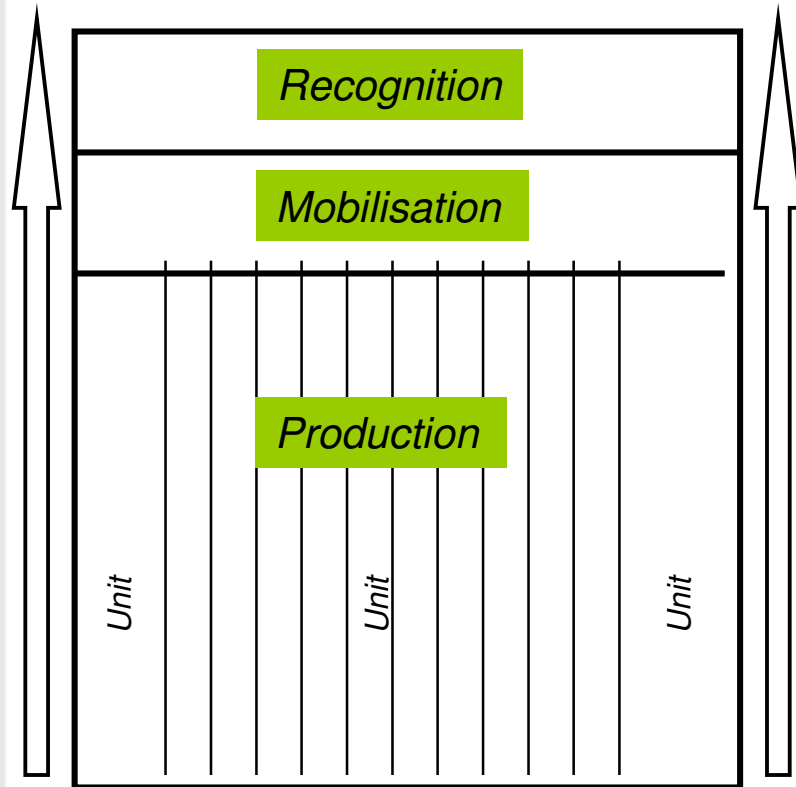


*Because we move from a production-centred  
towards a recognition-centred organisation...*

*Functional division of  
organisations now...*

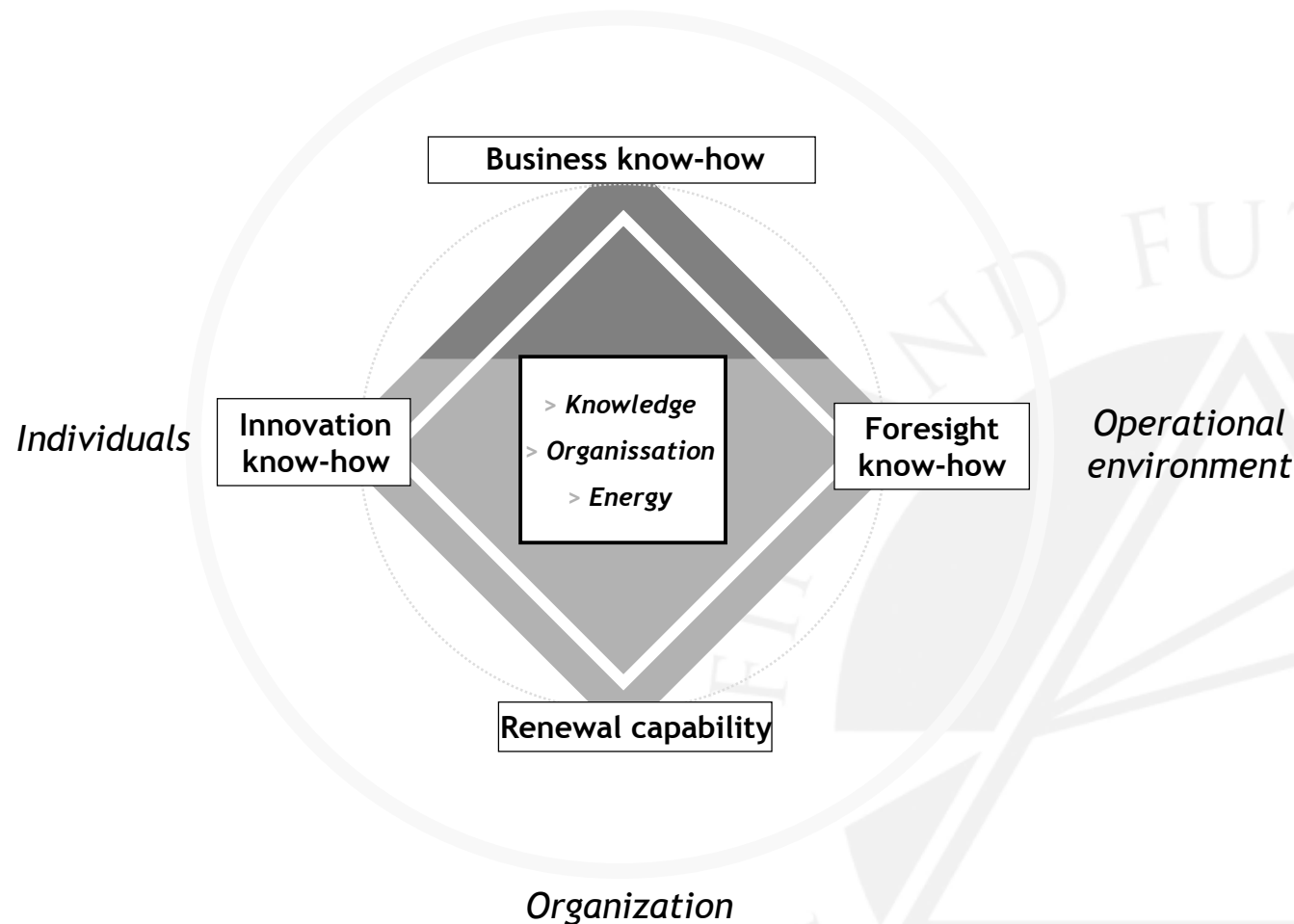


*And in the future...*

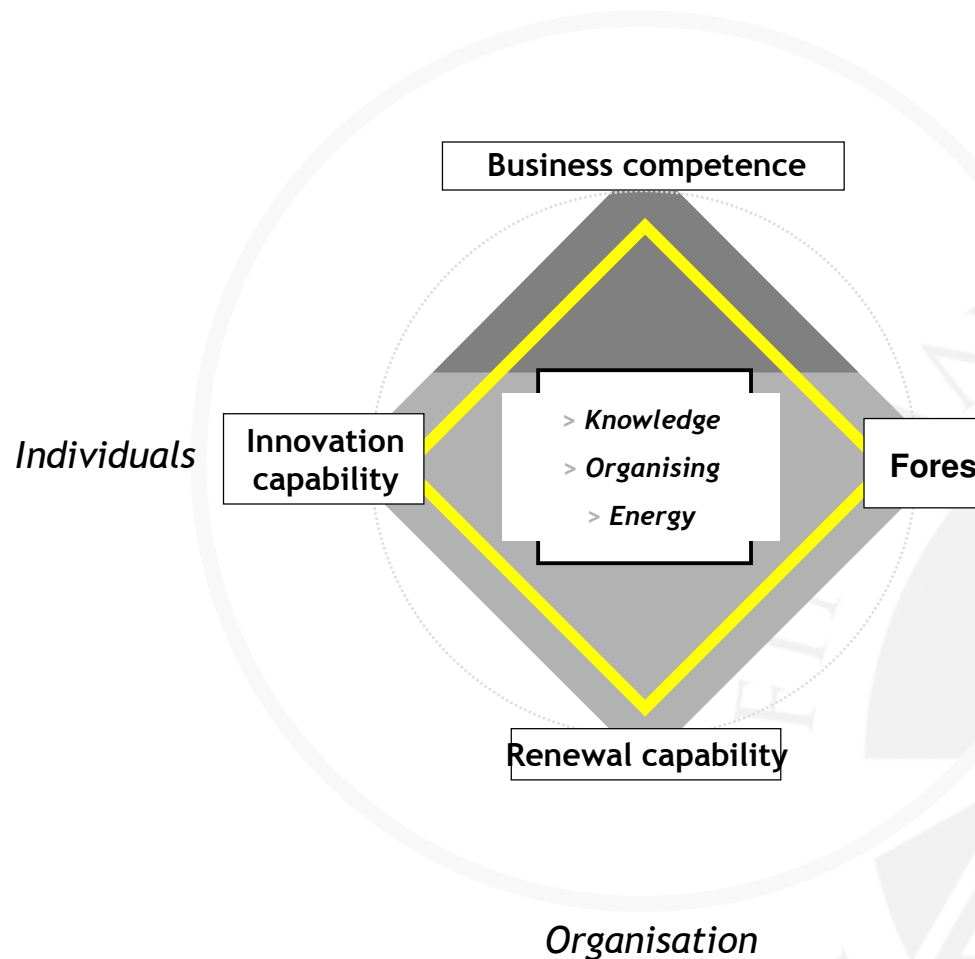


# This is our framework

## Leading Creative Knowledge Capital

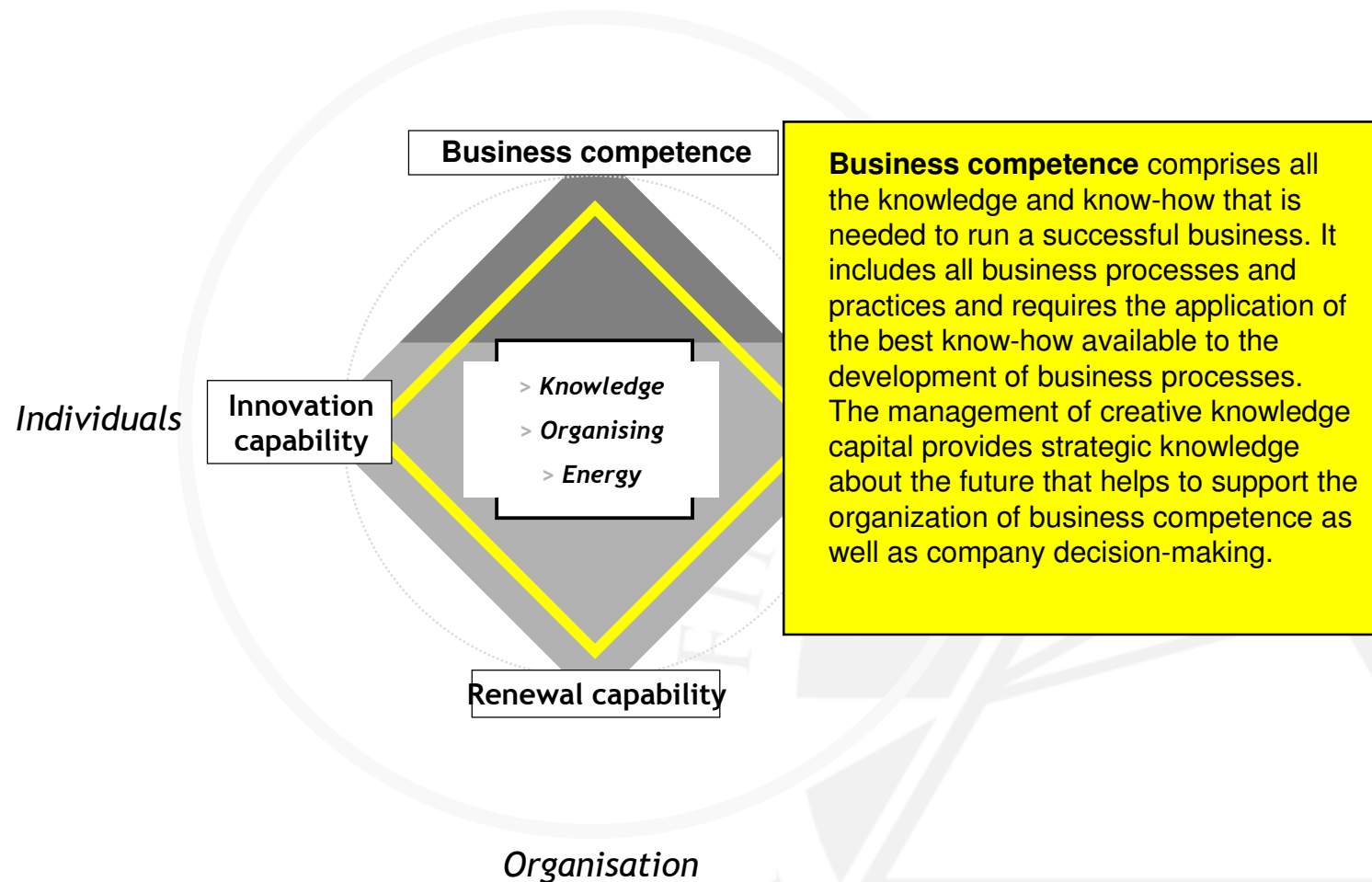


# Leading Creative Knowledge Capital

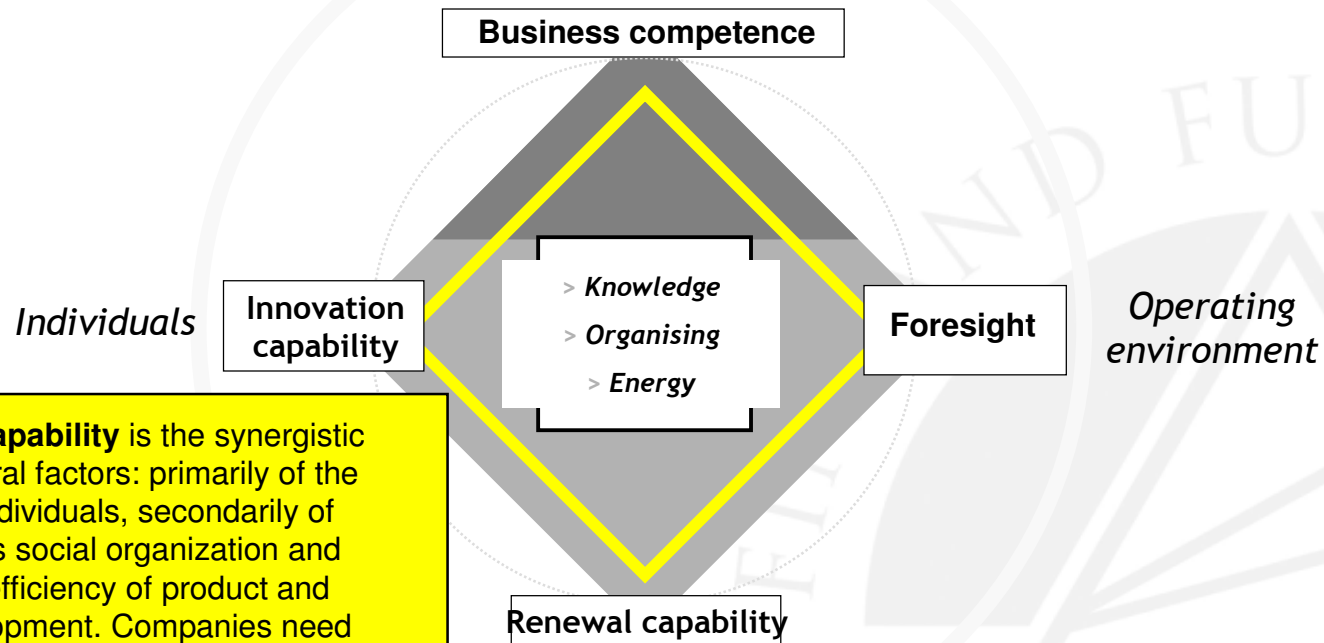


The sources of **creative knowledge capital** are embedded in the business environment, in the business organization itself as well as in its individuals. These three factors are the most critical to business competitiveness, since they either constrain or open up the business's future prospects. The sources of creative knowledge capital can be analysed by focusing on the organization's foresight competencies, its capacity for renewal and regeneration and its capacity for innovation.

# Leading Creative Knowledge Capital

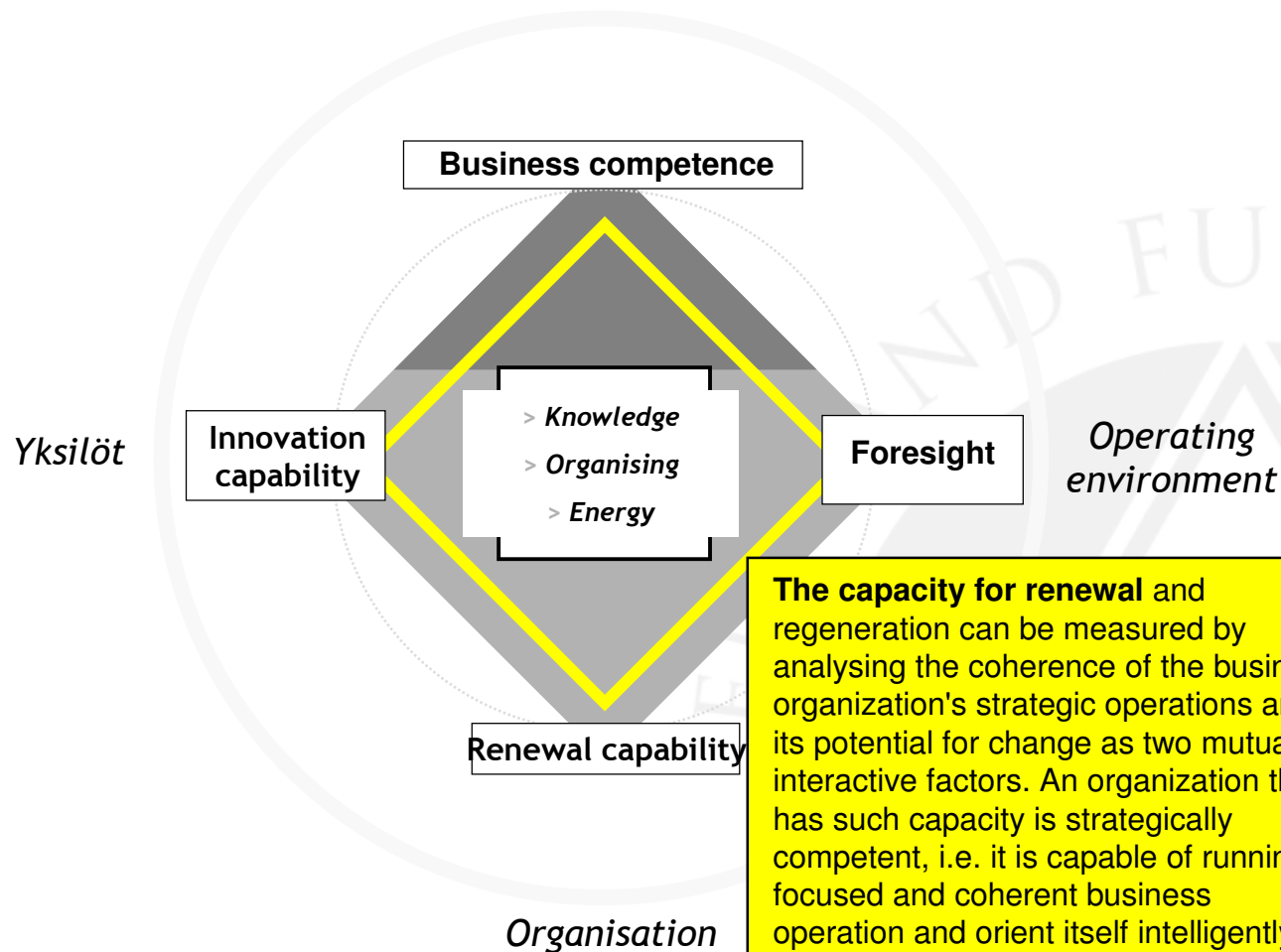


# Leading Creative Knowledge Capital



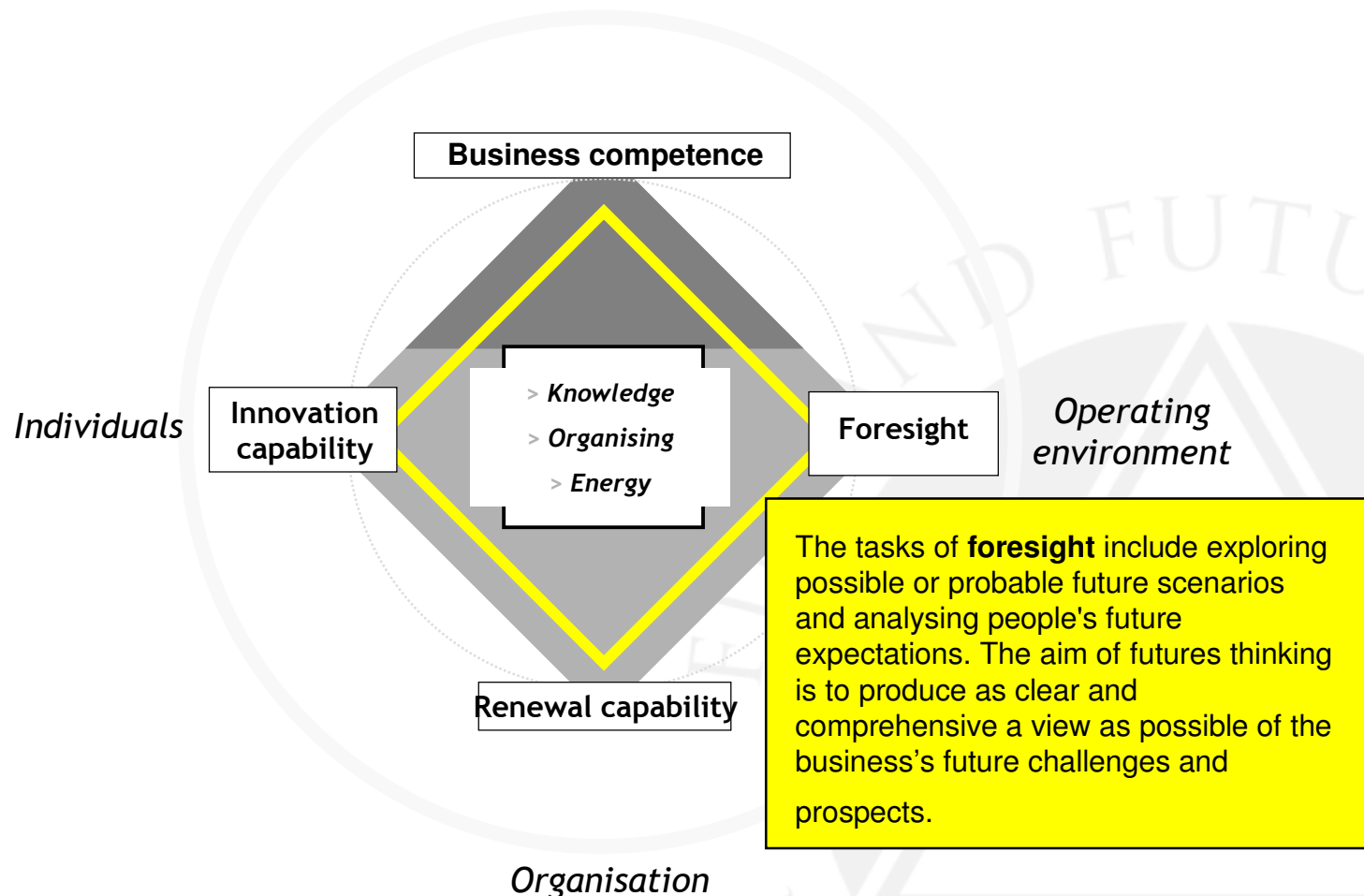
**Innovation capability** is the synergistic effect of several factors: primarily of the creativity of individuals, secondarily of the company's social organization and thirdly of the efficiency of product and service development. Companies need to learn to lead innovation capability at all levels of the organization: the first step is to identify the innovators, the second is to facilitate their co-operation and the third to make their creativity a strategic asset.

# Leading Creative Knowledge Capital



**The capacity for renewal and regeneration** can be measured by analysing the coherence of the business organization's strategic operations and its potential for change as two mutually interactive factors. An organization that has such capacity is strategically competent, i.e. it is capable of running a focused and coherent business operation and orient itself intelligently within its business environment.

# Leading Creative Knowledge Capital



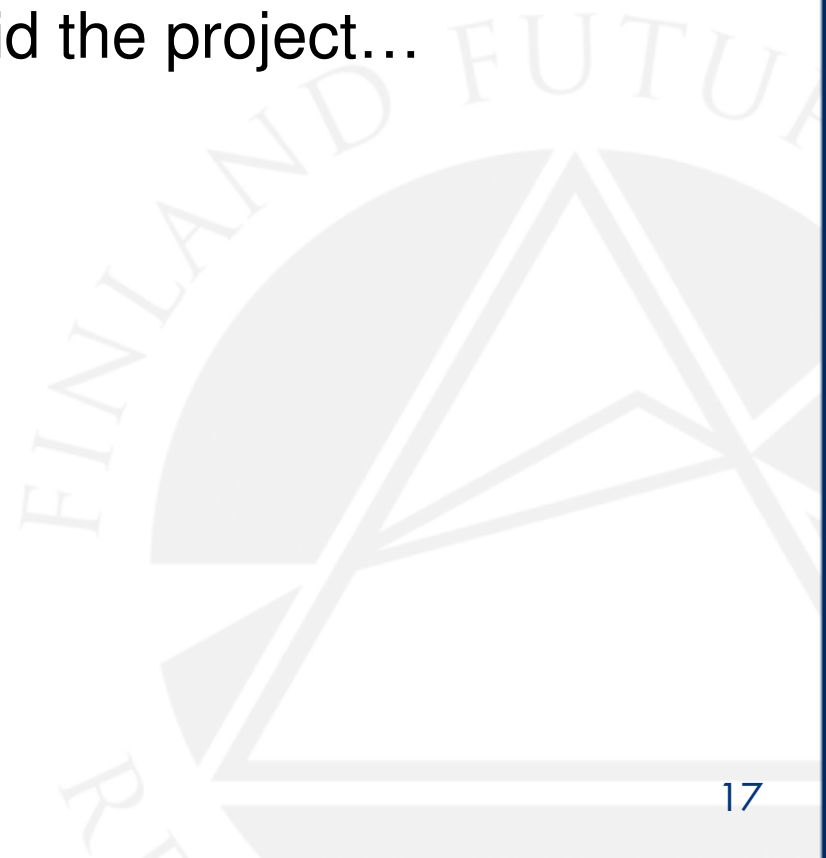
# The foundation and objectives of the DYNY project

- The objective of the project was to develop organizations' innovation know-how and renewal capability as strategic competence factors
- The project produced meters and methods for developing the organizations'
  - renewal capability,
  - innovation know-how and
  - developing foresight.
- The theoretical background lies in the concepts of Creative Economy (Wilenius 2004) and Dynamic Knowledge Capital (Stähle 2003) developed by the research team.
- The project also produces articles and books dealing with innovation know-how and creative knowledge capital.

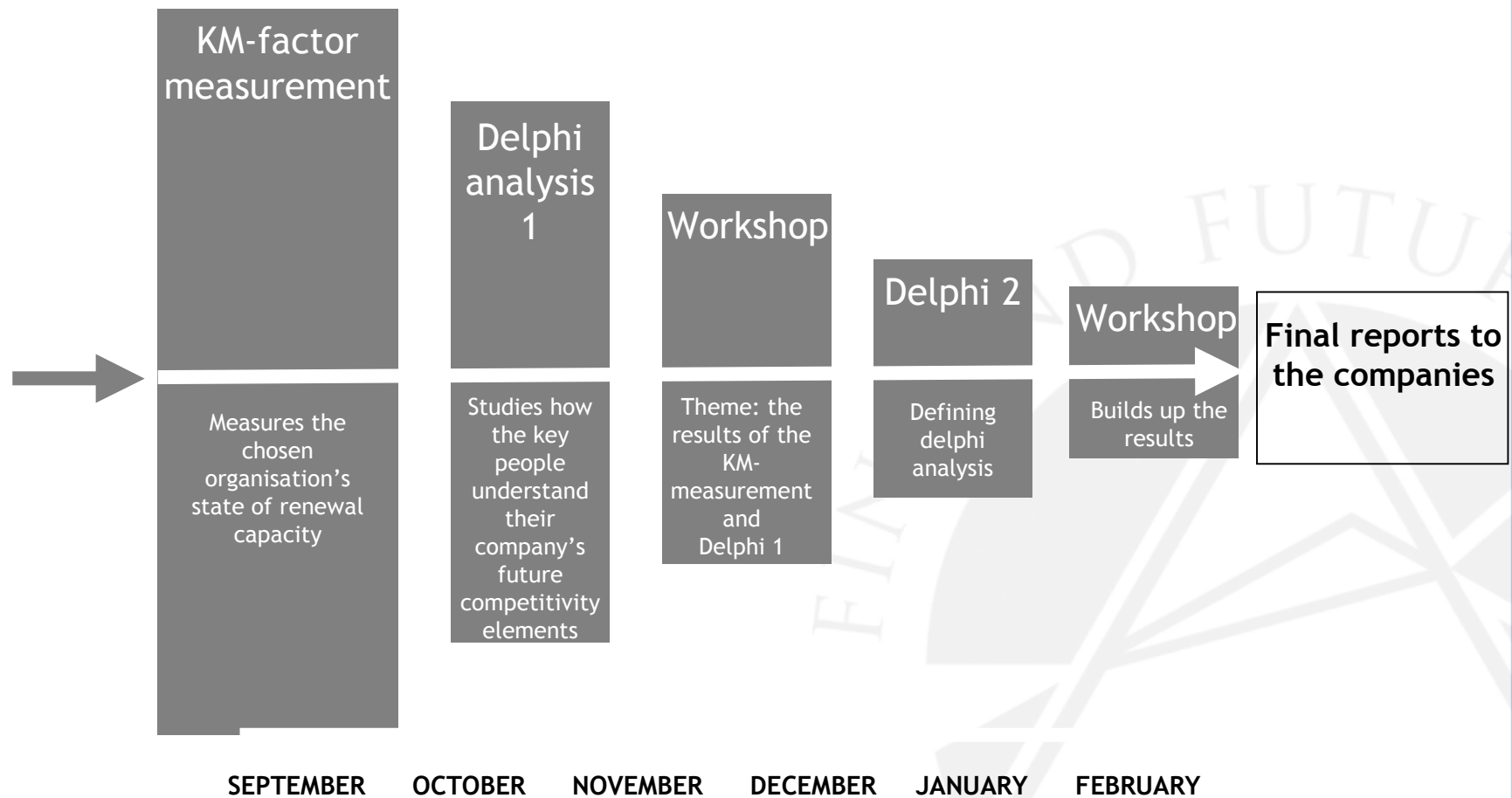
# Actors of the DYNY project

- Carried out by Finland Futures Research Centre / Turku School of Economics
  - FFRC is an auxiliary unit of Turku School of Economics. It refines visionary knowledge regarding alternative futures and the challenges and possibilities included in them.
- Funded by TEKES, the National Technology Agency of Finland.
- The project partner companies have been six Finnish Companies: AffectoGenimap Plc., Marimekko Corporation, Advertising Agency SEK & GREY Ltd., The Tapiola Group, UPM-Kymmene Group Plc. and VR Group Ltd (national railway company).

This is how we did the project...



# Phases of the DYNY project



# KM-factor analysis

30.11.2006

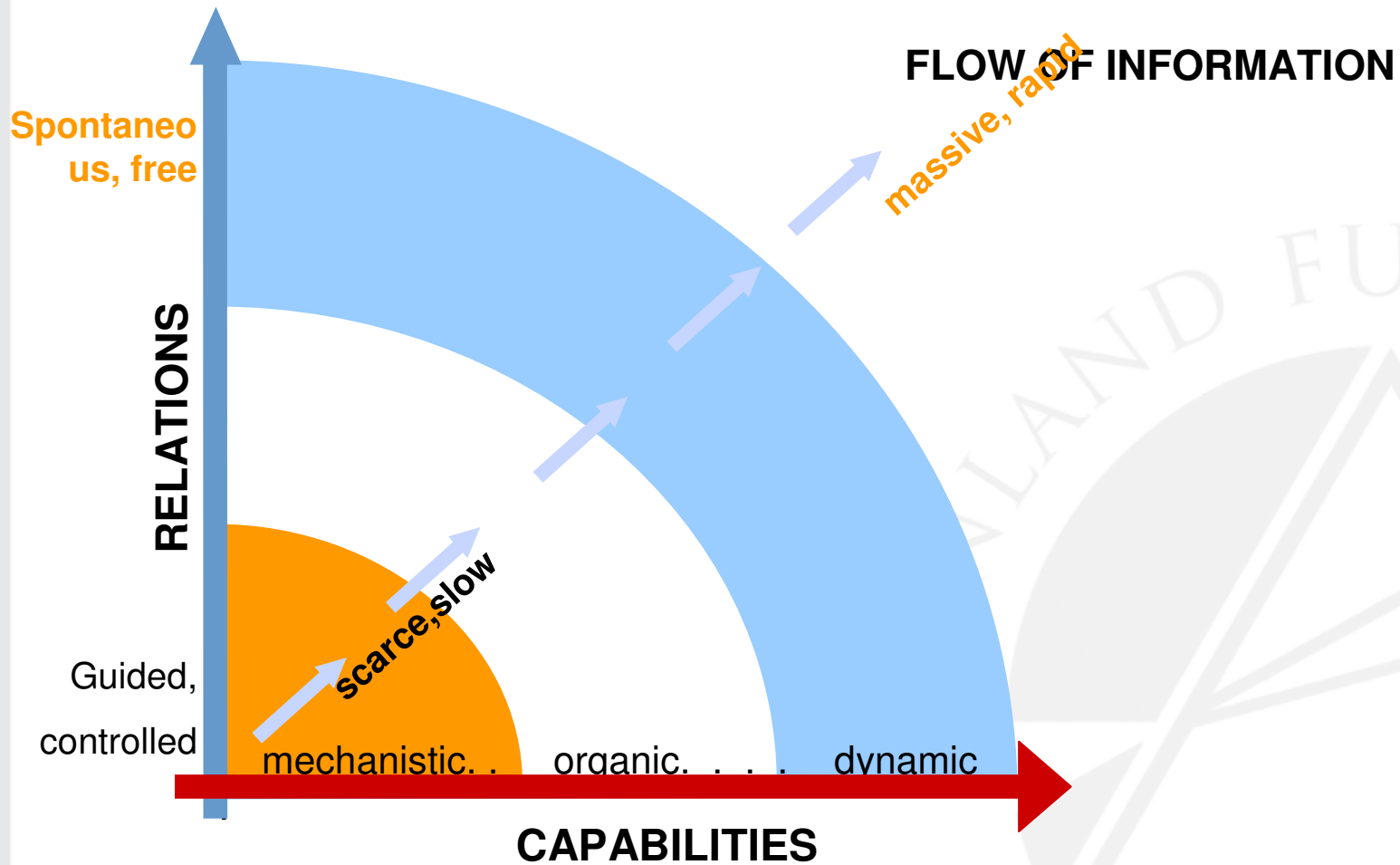
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# KM-factor®

- measures renewal capability based on the interpretation of organizations as dynamic knowledge systems
- the firm is examined as 3 interconnected knowledge environments
  - mechanistic – value creation from standardized operating models and processes
  - organic – a platform for mutual learning and incremental development
  - dynamic – knowledge flows and potential knowledge are cultivated into innovations

# Organization as a System

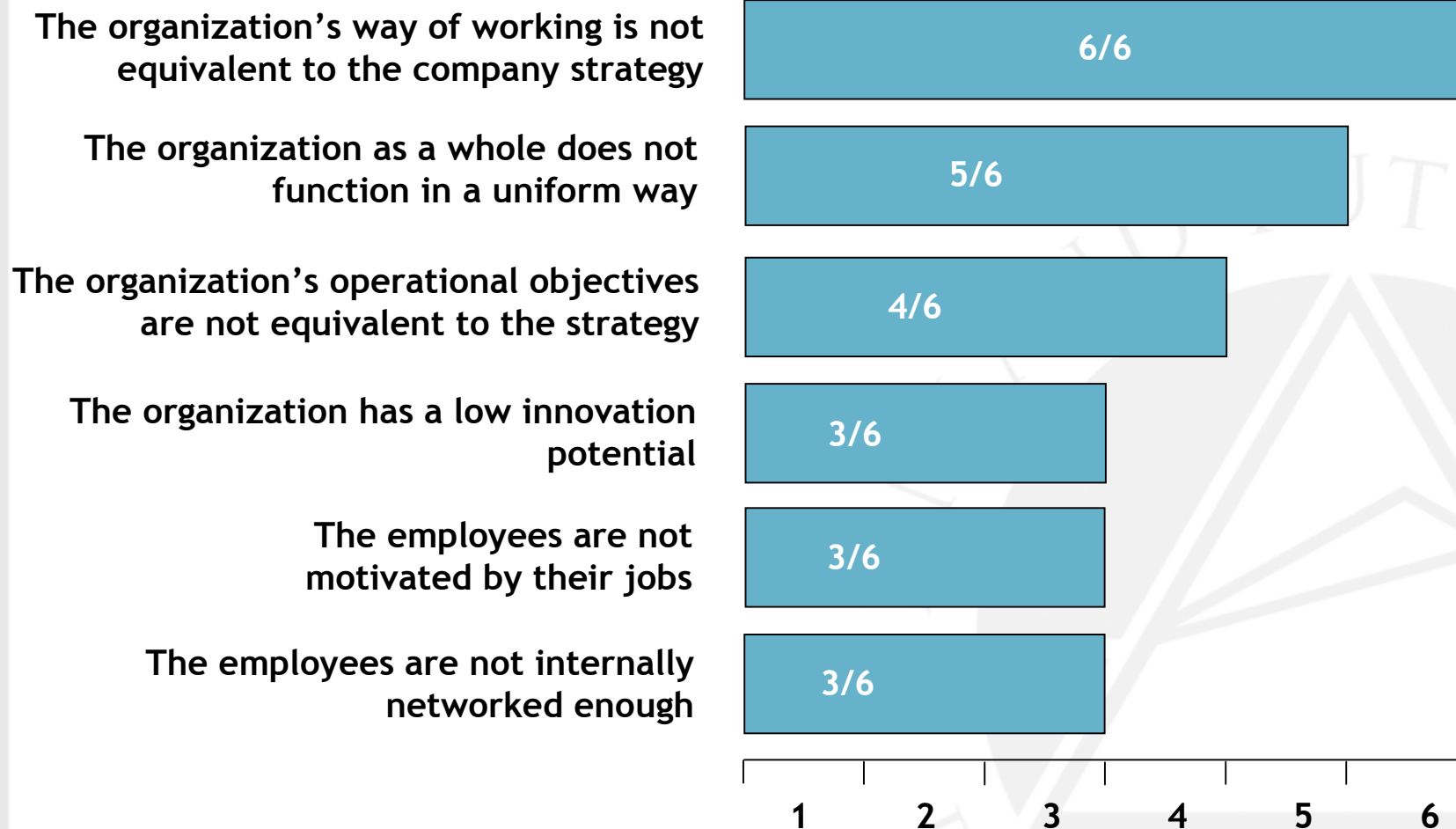


## IC-index

Intellectual Capital (IC) index measures the renewal capacity of an organisation as a whole. It serves as an indicator of organisational renewal capacity that compares the value of this characteristic to the average value for a reference group.

<b>Organisational DIC index</b>	(%)	* Internal change
<p>The IC index is an indicator of renewal capacity with respect to the reference group. It is expressed as a percentage. If the value is:</p> <ul style="list-style-type: none"> <li>• under 100 %, then renewal capacity is below the reference group average,</li> <li>• 100 %, then renewal capacity corresponds to the reference group average,</li> <li>• over 100 %, then renewal capacity is above the reference group average.</li> </ul>	<b>85</b>	<b>-5</b>
<p><b>Strategic competence</b></p> <p>This index measures the following for the employees of an enterprise/unit</p> <ul style="list-style-type: none"> <li>• the ability to perceive the current situation and to set clear and coherent objectives</li> <li>• the ability to achieve the objectives by working together.</li> </ul>	<b>82</b>	<b>-2</b>
<b>Unanimity regarding the current situation</b>	<b>73</b>	
<b>Unanimity regarding objectives</b>	<b>98</b>	<b>-4</b>
<b>Coherence of developmental challenges</b>	<b>66</b>	
<b>Operational profiling according to strategy</b>	<b>98</b>	<b>+1</b>
<b>Sensitivity to the situation</b>	<b>99</b>	<b>+1</b>

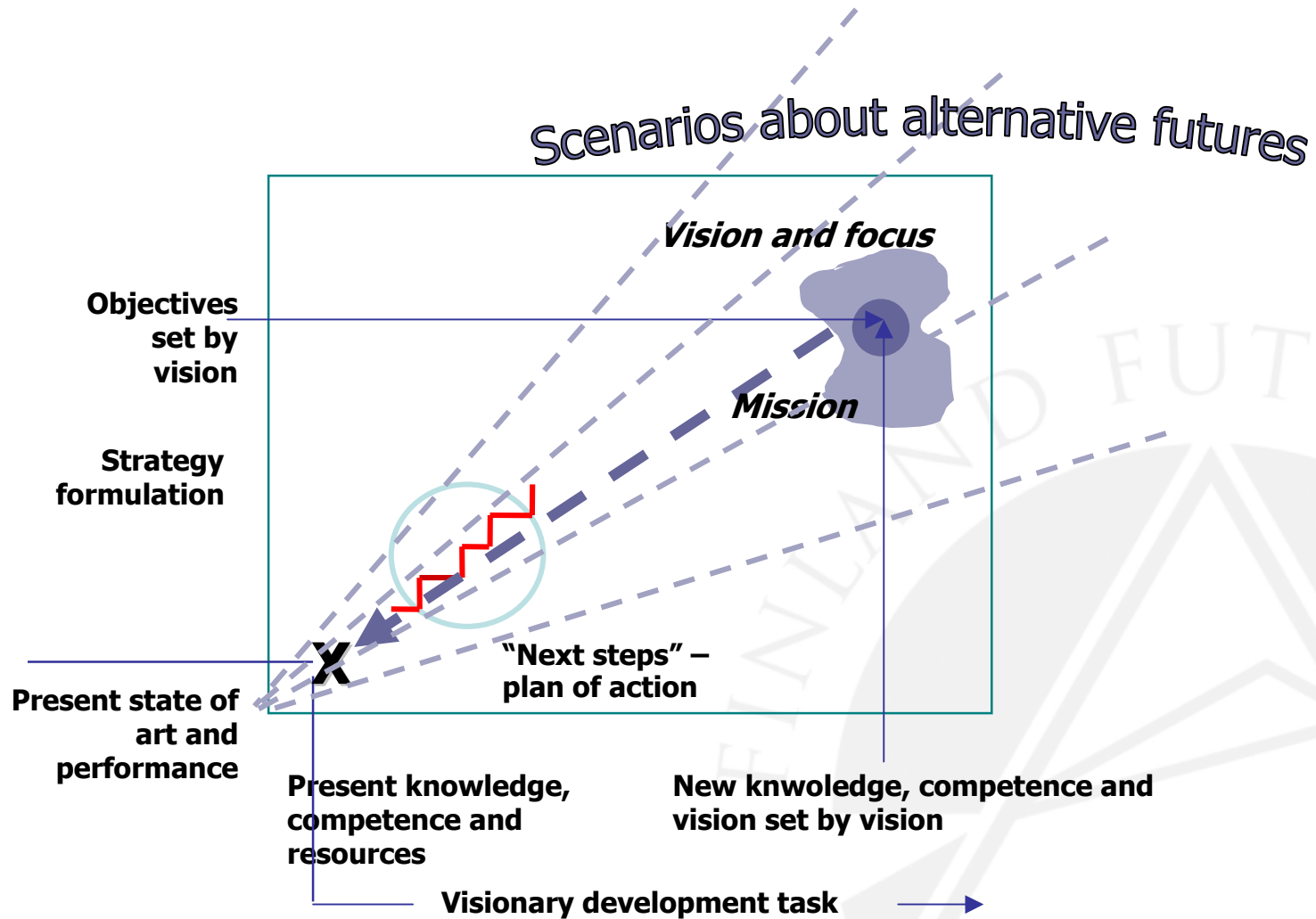
# Challenges of the 6 companies



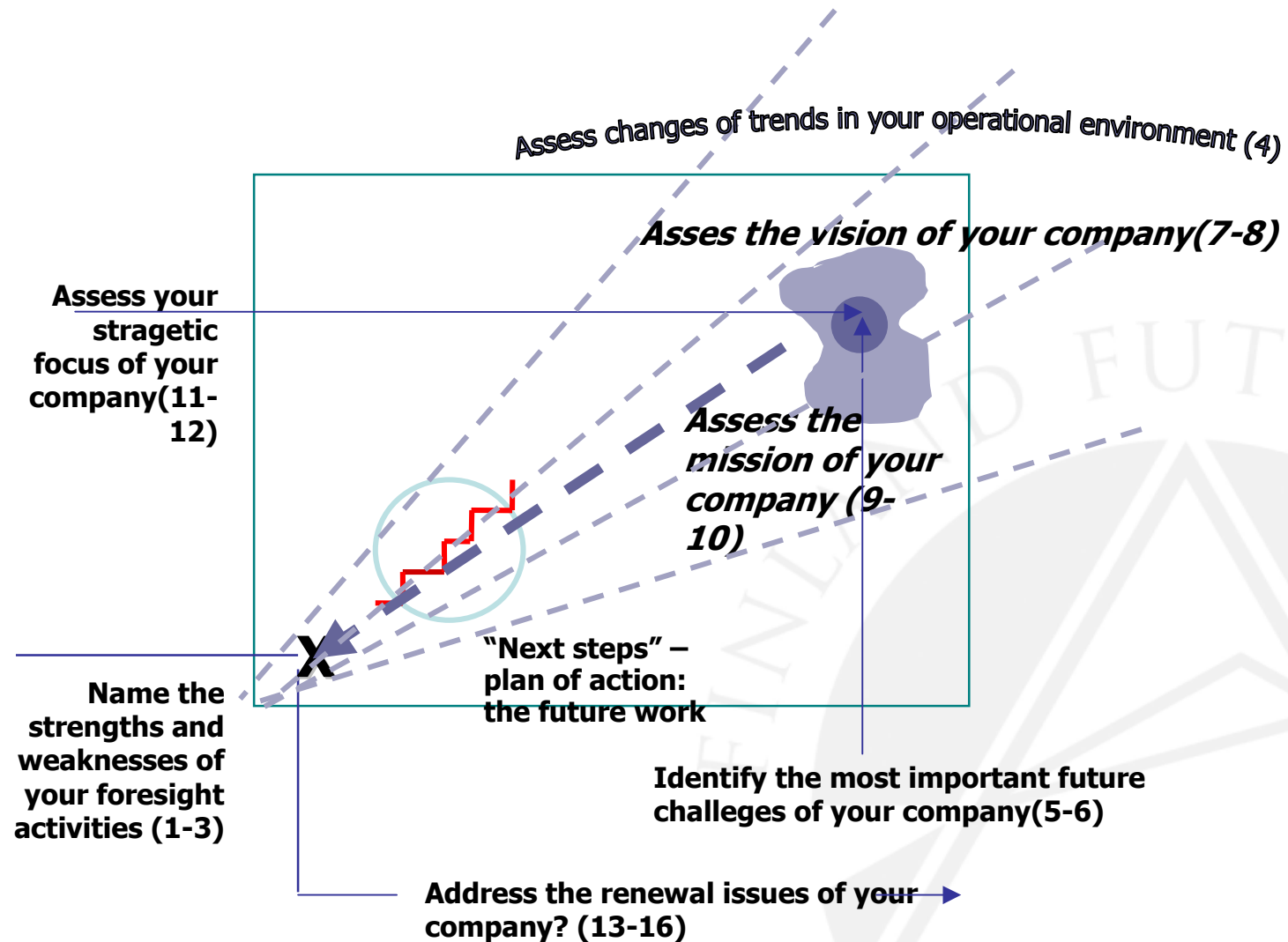
# Delfoi-method

- ✚ A tool for tracking future by expert estimates
- ✚ Features of Delphi-method:
  - Anonymity
  - Many rounds
  - response
- ✚ To disclose arguments and the hidden knowledge.

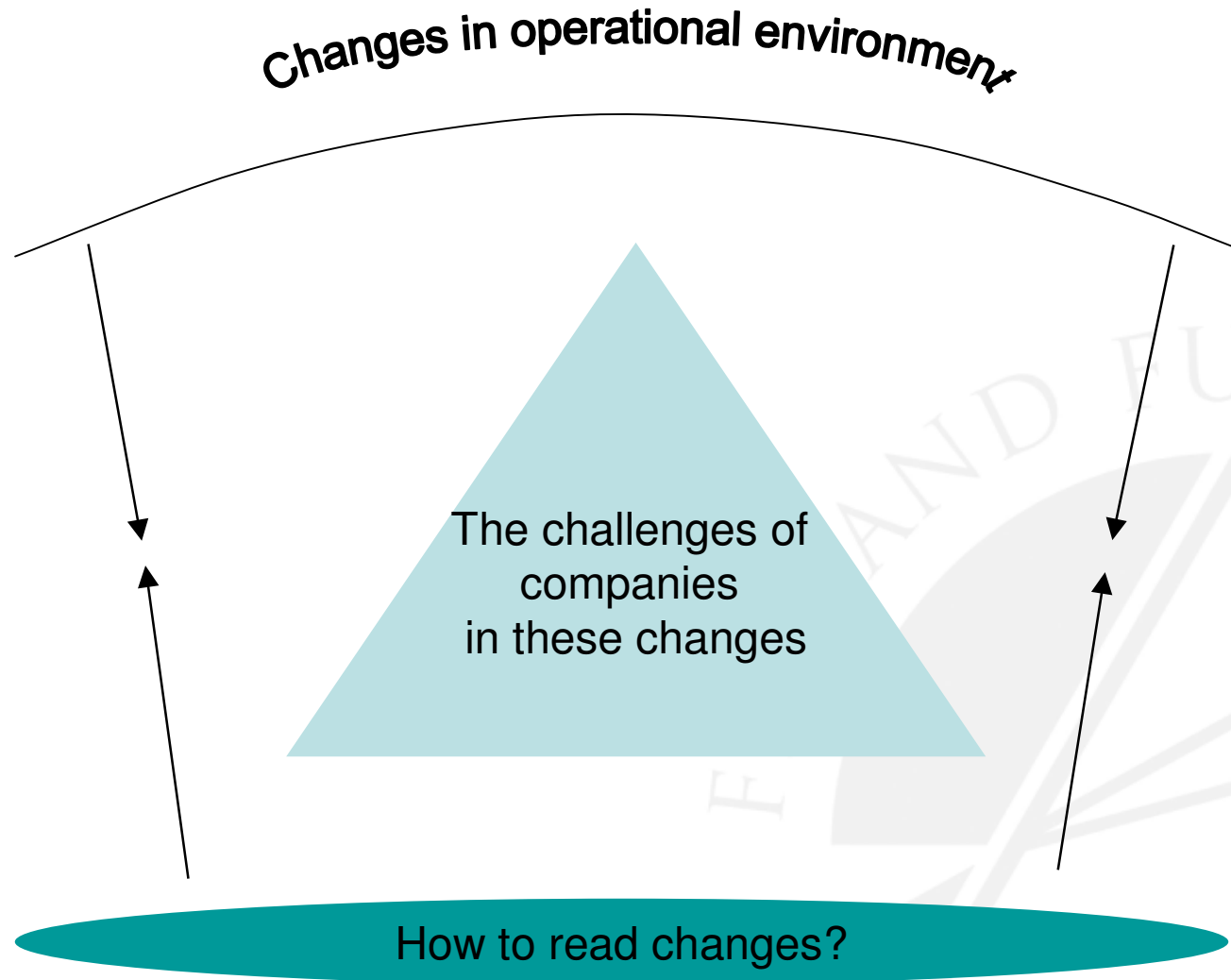
# Model behind Delphi...



## ...And Delphi questions and arguments accordingly



# Some findings...



## Changes in operational environment

- ✚ Increasing demands from customers and search for new solutions
- ✚ The growing importance of uniqueness in the pressures of globalisation
- ✚ Demographic changes and new needs stemming from that fact
- ✚ Increasing price competition and diminishing profit
- ✚ Accelerating technological development
- ✚ Increasing competition and opening markets

- ✚ Increasing role of strategic partnerships
- ✚ More focus on brand building
- ✚ More expertise on market analysis



- ✚ New opportunities and out of saturated markets
- ✚ Chrystallisation of operational focus
- ✚ Ability to meet the challenge set by competitors

## How to read the signs?

- ✚ By estimating changes among the customers by their behavior and talk
- ✚ By tracking the changes in competitors
- ✚ By interpreting changes in people's life styles
- ✚ By analysing the technological development
- ✚ By estimating the fields of development in other companies and other businesses

## Summa summarum:

- ✚ Very much variety in responses from companies: not much organised foresight visible
- ✚ Key questions: how foresight should more visible in everyday practice?
- ✚ Most important challenge: to create modes of action that support foresight activities.

## Results in a nutshell (2)

- Very few companies have systematic approach to foresight
- However, all the companies see the growing importance of foresight
- The challenge for every company is how to use the innovation capability

## We received a lot of positive feedback from companies...

Comment from the UPM-Kymmene, one of world's largest forest company, their director of innovation Jorma Lehtinen:

*“In large companies the history and culture rise to the forefront every time there is a great need for change. The project gave an outstanding chance to evaluate UPM’s current state by analyzing its ability to change, capability to direct its changes and the timing of these changes. Also surprises were unavoidable in the process. The book that emerged from the project and the detailed recommendations given by the research team will be excellent tools in the long and demanding process of changing our organizational culture, a change inevitable in the contemporary world. The crucial factors that helped the project achieve its brilliant outcome were, above all, Pirjo Ståhle’s and Markku Wilenius’ high quality of research and an broadminded approach, Finland Futures research centre’s personnel’s uncompromising investment in activating the project’s participants and an open, honest and sometimes anarchistic atmosphere in the management team”.*

## More comments...

*The project has helped us to identify the factors impeding our change management. In the context of strategy formulation we have agreed to take measures which enable us to concentrate on issues that are relevant and which will help us to follow through with our development projects more efficiently. –J. Paavilainen, VR Oyj*

*The project offered a good occasion to stop and ponder the relations between strategy and practice. Even though we were already familiar with some of the issues raised, the project was able to provide a fresh viewpoint to them. Also completely new ideas were abundant and we noticed that we were not alone with our development challenges. We want to thank the active and enthusiastic crew at Tapiola, the other companies that participated in the project for good conversations and the skilful leadership of the research team. Already during the project there started to emerge thoughts and ideas we were able to take into our daily practices immediately. In addition, the recommendations provided by the researchers give a good direction for further developmental work. P.Killstöm, Tapiola*

*The results obtained in the project supported and clarified our outlook on the development needs of our company. Participation in the project gave us new viewpoints both to the development of our organization as well as our business.*

*P.Aarni, Affecto Genimap.*

PIRJO STÄHLE ■ MARKKU WILENIUS



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